

	ACCREDITATION DOCUMENT	F-06/02 Issue Date: 10/08/15 Rev. No: 07 LAB 000
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Accreditation No: LAB 023

Awarded to

**Chemical & Environmental Laboratory,
SGS Pakistan Private Limited. Karachi, Pakistan.
H-3/3, Sector 05, Korangi Industrial Area, Karachi,
UAN. +92 21 111 222 747**

The scope of accreditation is in accordance with the standard specifications outlined in the following page(s) of this document. The accredited scope shall be visible and legible in areas such as customer service, sample-receiving section etc and shall not mislead its users.

The accreditation was first time granted on **06-06-2006** by Pakistan National Accreditation Council.

The laboratory complies with the requirements of **ISO/IEC 17025:2005**.

The accreditation requires regular surveillance, and is valid until **15-10-2018**.

The decision of accreditation made by Pakistan National Accreditation Council implies that the organization has been found to fulfill the requirements for accreditation within the scope.

The organization however, itself is responsible for the results of performed measurements/tests.

PAKISTAN NATIONAL ACCREDITATION COUNCIL

Date

Director General

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Testing Laboratory.

**Chemical & Environmental Laboratory,
SGS Pakistan Private Limited. Karachi, Pakistan.**

Permanent laboratory premises: H-3/3, Sector 05, Korangi Industrial Area, Karachi,

Materials/Products tested	Testing field (e.g. environmental testing or mechanical testing)	Types of test/ Properties measured	Reference to standardized method (e.g. ISO 14577-1:2003)/ Internal method reference
Chrome Ore	Chemical Testing	Chromium	MNTP/2009/SOP-CCO/01 Non standard method, Based on ISO 6331-1983 (E)
Chrome Ore	Chemical Testing	Alumina	MNTP/2009/SOP-ACO/04 MNTP/2009/SOP-ACO/04-A Non standard method, Based on ISO 6331-1983 (E) & IS 4737-1982
Chrome Ore	Chemical Testing	Silica	MNTP/2009/SOP-SCO/02 Non standard method, Based on ISO 5997-1984 (E)
Chrome Ore	Chemical Testing	Iron	Non standard method, Based on ISO 6130-1985 (E) MNTP/2009/SOP- ICO/03 Based on ISO 6130-1985 (E) MNTP/2009/SOP-ACO/09
Iron Ore	Chemical Testing	Iron	MNTP/2009/SOP-IIO/05 Non standard method, Based on ISO 2597-1- 2006 (E)
Iron Ore	Chemical Testing	Silica	MNTP/2009/SOP-SIO/06 Non standard method, Based on ISO 2598-1 1992-12-15 (E)

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Iron Ore	Chemical Testing	Alumina	MNTP/2009/AIO/07 Non standard method, Based on ISO 4688-1 - 2006
Fertilizer	Chemical Testing	Nitrogen	MNTP/2009/SOP- NDU/10 Non standard method, Based on AOAC. 955.04, 978.02 & 970.02 20th Edition (2016)
Fertilizer	Chemical Testing	Total Phosphate	MNTP/2009/SOP-TPF/11 Non standard method, Based on AOAC. 962.02 20th Edition (2016)
Fertilizer	Chemical Testing	Water soluble Phosphate	MNTP/2009/SOP-WPF/12 Non standard method, Based on AOAC. 962.03 20th Edition (2016)
Coal and Coke	Chemical Testing	Ash Content	MNTP/2009/SOP- ACCC/14 Non standard method, Based on ASTM –D3174- 12 & ISO 1171: 2010(E)
Coal and Coke	Chemical Testing	Calorific Value	MNTP/2009/SOP- CVCC/16 ASTM – D 5865-13 & ISO 1928: 2009
Coal and Coke	Chemical Testing	Total Moisture in Coal	MNTP/2009/SOP-TMC/17 Non standard method, Based on ASTM – D3173- 11, D3302 / 3302M-15 & ISO 589-2008 E
Coal and Coke	Chemical Testing	Total Sulfur	MNTP/2009/SOP-TSCC/13 Non standard method, Based on ASTM –D3177- 02 2007 & ASTM D 4239- 14^{e2}

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Coal and Coke	Chemical Testing	Total Moisture in Coke	MNTP/2009/SOP-TMC/16 Non standard method, Based on ASTM D3173-11 & ISO 579:2013 E
Water	Chemical Testing	Aluminum	MNTP/2009/SOP-MW/08 Non standard method, Based on ASTM –D857-12, APHA 3111 D & 3120B 22nd Edition
Water	Chemical Testing	Manganese	MNTP/2009/SOP-MW/08 Non standard method, Based on ASTM –D858-12 APHA 3111 B & 3120B 22nd Edition
Water	Chemical Testing	Iron	MNTP/2009/SOP-MW/08 Non standard method, Based on ASTM –D1068-15, APHA 3111 B & 3120B 22nd Edition
Water	Chemical Testing	Chromium	MNTP/2009/SOP-MW/08 Non standard method, Based on ASTM –D1687-12, APHA 3111 B & 3120B 22nd Edition
Water	Chemical Testing	Copper	MNTP/2009/SOP-MW/08 Non standard method, Based on ASTM –D1688-12, APHA 3111 B & 3120B 22nd Edition
Water	Chemical Testing	Zinc	MNTP/2009/SOP-MW/08 Non standard method, Based on ASTM –D1691-12, APHA 3111 B & 3120B 22nd Edition

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Materials/Products tested	Testing field (e.g. environmental testing or mechanical testing)	Types of test/ Properties measured	Reference to standardized method (e.g. ISO 14577-1:2003)/ Internal method reference
Water	Chemical Testing	Nickel	MNTP/2009/SOP-MW/08 Non standard method, Based on ASTM –D1886- 14 , APHA 3111 B & 3120B, 22nd Edition
Water	Chemical Testing	Cadmium	MNTP/2009/SOP-MW/08 Non standard method, Based on ASTM –D3557- 12 , APHA 3111 B & 3120B 22nd Edition
Water	Chemical Testing	Lead	MNTP/2009/SOP-MW/08 Non standard method, Based on ASTM –D3559- 15 , APHA 3111 B (AAS) & 3120B (ICP), 22nd Edition
Water	Chemical Testing	Alkalinity	MNTP/2009/SOP-AW/18 Non standard method, Based on APHA – 2320B 22nd Edition
Water	Chemical Testing	Biochemical Oxygen Demand	MNTP/2009/SOP-BOD/24 Non standard method, Based on APHA 5210 D 22nd Edition
Water	Chemical Testing	Chlorides	MNTP/2009/SOP-CW/19 Non standard method, Based on APHA – 4500 B &Cl ⁻ 22nd Edition
Water	Chemical Testing	Chemical Oxygen Demand	MNTP/2009/SOP-COD/20 Non standard method, Based on APHA – 5220 B 22nd Edition MNTP/2009/SOP-COD/25 Non standard method, Based on APHA – 5220 D 22nd Edition

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Materials/Products tested	Testing field (e.g. environmental testing or mechanical testing)	Types of test/ Properties measured	Reference to standardized method (e.g. ISO 14577-1:2003)/ Internal method reference
Water	Chemical Testing	Ca and Mg	MNTP/2009/SOP-CMW/26 (AAS) Non standard method, Based on APHA – 3500-CaB 22nd Edition Based on APHA – 3500-MgB 22nd Edition Based on APHA –3110 ,3111-B & D 22nd Edition Based on APHA –3111-B & 3120 A 22nd Edition
Water	Chemical Testing	pH Value	MNTP/2009/SOP-pH/27 Non standard method, Based on APHA – 4500-H ⁺ B 22nd Edition
Water	Chemical Testing	Total Dissolved Solid	MNTP/2009/SOP-TDS/22 Non standard method, Based on APHA – 2540 C 22nd Edition
Water	Chemical Testing	Total Hardness	MNTP/2009/SOP-THW/28 Non standard method, Based on APHA – 2340 B & C 22nd Edition
Water	Chemical Testing	Total Suspended Solid	MNTP/2009/SOP-TSS/23 Non standard method, Based on APHA – 2540D 22nd Edition
Water	Chemical Testing	Sulphate	MNTP/2009/SOP-SW/29 Non standard method, Based on APHA – 4500 C SO ₄ ⁻² 22nd Edition

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Materials/Products tested	Testing field (e.g. environmental testing or mechanical testing)	Types of test/ Properties measured	Reference to standardized method (e.g. ISO 14577-1:2003)/ Internal method reference
Ores, Rocks and Minerals	Chemical Testing	Lead	MNTP/2009/SOP-MAMAD/30 Non standard method, Based on analysis of ores, rocks & minerals by Scott.
Ores, Rocks and Minerals	Chemical Testing	Copper	MNTP/2009/SOP-MAMAD/30 Non standard method, Based on analysis of ores, rocks & minerals by Scott
Ores, Rocks and Minerals	Chemical Testing	Zinc	MNTP/2009/SOP-MAMAD/30 Non standard method, Based on analysis of ores, rocks & minerals by Scott
Ores, Rocks and Minerals	Chemical Testing	Cobalt	MNTP/2009/SOP-MAMAD/30 Non standard method, Based on analysis of ores, rocks & minerals by Scott
Ores, Rocks and Minerals	Chemical Testing	Nickel	MNTP/2009/SOP-MAMAD/30 Non standard method, Based on analysis of ores, rocks & minerals by Scott
Ores, Rocks and Minerals	Chemical Testing	Silver	MNTP/2009/SOP-MAMAD/30 Non standard method, Based on analysis of ores, rocks & minerals by Scott
Ores, Rocks and Minerals	Mechanical & Physical Testing	Sample Preparation	MNTP/2009/SOP-SPGC/31 Non standard method, Based on SGS Mineral Sampling Manual

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Materials/Products tested	Testing field (e.g. environmental testing or mechanical testing)	Types of test/ Properties measured	Reference to standardized method (e.g. ISO 14577-1:2003)/ Internal method reference
Cement	Chemical Testing	Calcium Oxide	MNTP/2010/SOP-CMC/35 Non standard method, Based on BS EN 196-2 : 2005 Based on ASTM C-114-15
Cement	Chemical Testing	Silica	MNTP/2010/SOP-SiC/33 Non standard method, Based on BS EN 196-2 : 2005 Based on ASTM C-114-15
Cement	Chemical Testing	Aluminium Oxide	MNTP/2010/SOP-MC/34 Non standard method, Based on BS EN 196-2 : 2005 Based on ASTM C-114-15
Cement	Chemical Testing	Iron (III) Oxide	MNTP/2010/SOP-MC/34 Non standard Non standard method, Based on BS EN 196-2 : 2005 Based on ASTM C-114-15
Cement	Chemical Testing	Magnesium Oxide	MNTP/2010/SOP-CMC/35 Non standard method, Based on BS EN 196-2 : 2005 Based on ASTM C-114-15
Cement	Chemical Testing	Loss on Ignition	MNTP/2010/SOP-LOIC/36 Non standard method, Based on BS EN 196-2 : 2005 Based on ASTM C-114-15
Cement	Chemical Testing	Sulfate	MNTP/2010/SOP-SC/38 Non standard method, Based on BS EN 196-2 : 2005 Based on ASTM C-114-15

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Cement	Chemical Testing	Alkali content (Na ₂ O & K ₂ O)	MNTP/2010/SOP-AC/37 Non standard method, Based on BS EN 196-2 : 2005 Based on ASTM C-114-15
Cement	Physical Testing	Compressive Strength	BS EN 196-1 : 2005, ASTM C109 / C109M-16a PS-232:2008 , ISO 679-2009 Tested at 20° C & 27 ° C
Cement	Physical Testing	Setting Time	BS EN 196-3 : 2005 & ASTM C191-13
Cement	Physical Testing	Soundness	BS EN 196-3 : 2005
Cement	Physical Testing	Fineness	BS EN 196-6 : 1992 & ASTM C204-16
Manganese ores	Chemical Testing	Manganese content	MNTP/2010/SOP-J-Mn/40 MNTP/2010/SOP-AAS-Mn/39 Non standard method, Based on JIS M8232-1982 & F.A. Julian, J. Am. Chem. Soc., 15, 113

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Calibration Laboratory.

Accreditation Scope of ABC Lab. PQR City, XYZ Country.

Permanent laboratory premises

Field of measurement:			
Measured quantity	Range	Calibration & Measurement Capability (CMC) expressed as an uncertainty (±)	Brief description of measurement and equipment used

Date

Director